Bill Brewer
Granville Site Technical Committee
10805 Cahill Road
Raleigh, NC 27614

January 21, 2003

KA
1/30/03

Mr. Kevin Adler, Remedial Project Manager
U.S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Granville Solvents Site Removal Action Quarterly Progress Report – Fourth Quarter 2002 Correction

Dear Mr. Adler:

I have enclosed two copies of pages 1 and 2 of the Fourth Quarter 2002 Report for the Removal Action at the Granville Solvents Site on behalf of the Granville Solvents Site PRP Group. Copies have been sent to the following individuals:

1. Mr. Steve Acree, U.S. EPA
2. Mr. Fred Myers, Ohio EPA
3. Mr. Joe Hickman, Manager, Village of Granville

Please note that the last paragraph on the first page has been corrected to indicate that the pump in EW-2 failed and that the concentration of TCE listed as 114.7 ug/l in the table on page 2 for the November 14 influent sample has been changed to 14.7 ug/l. If you have any questions regarding this report, please contact me at (919) 668-3218.

Regards.

Bill Brewer

William S. Brewer, Ph.D.
Granville Technical Committee Chair

cc: Peter Felitti, Regional Counsel, US EPA
Ben Pfefferle, Chairman, GSS PRP Group
Granville Technical Committee
G. Myers, Metcalf & Eddy
T. Struttmann, Sharp & Associates

Telephone 919-668-3218 Facsimile 919-684-2422 Email Brewe029@mc.duke.edu

GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR OCTOBER, NOVEMBER and DECEMBER, 2002

JANUARY 2003

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, September 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5 – Reporting, and in a letter dated November 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 736 hours in October, 720 hours in November, and 744 hours in December, for a total of 2,200 hours (99.64% of the total hours available) during the fourth quarter of 2002. Since operation of the treatment system began in December 1994, the system has been operating over 98.8% of the available time.

During the fourth quarter of 2002, the treatment system processed approximately 8.8 million gallons of water in October, 9.1 million gallons of water in November, and 6.9 million gallons of water in December for a total of 24.86 million gallons of water for the quarter. Since operation began in December 1994, the system has processed more than 948.24 million gallons of water.

During the fourth quarter of 2002, Metcalf & Eddy collected monthly air pressure measurements in the air-stripping unit's inlet and exhaust ducts to calculate airflow values. The airflow rate during the month of October averaged 2059 cfm, 1979 cfm in November, and 2173 cfm in December. Acid washing of the treatment system had been completed in early October.

M&E continued to perform scheduled monthly maintenance on the treatment system to ensure that the system is performing at maximum efficiency with decreased unscheduled downtime. Maintenance included replacing bag filters, lubricating the transfer pump and blower motors, and maintaining the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on October 15, November 14, and December 11, 2002. Analytical results are listed in Table 1.

Extraction well GSS-EW1 was operated at an average flow rate of approximately 80 gallons per minute (gpm) during the fourth quarter of 2002 until pump/motor failure occurred on December 13. GSS-EW2 was operated at an average flow rate of approximately 115 gallons per minute (gpm) during the period. The total pumping rate from the two wells averaged 187.4 gpm for the fourth quarter of 2002 – 205 gpm for the month of October, 205 gpm for the month of November, and 154.7 gpm for the month of December. The lower pumping rate observed in December was due to the declining performance of GSS-EW-2 prior to pump failure. Following pump failure, the pumping rate of the remaining pump, GSS-EW1, was increased to ensure capture of the groundwater VOC plume.

TABLE 1

VOCs	Influent October 15	Effluent Oct. 15	Influent November 14	Effluent November 14	Influent December 11	Effluent December 17
1,1,1-trichloroethane	10.5 µg/l	ND	12.2µg/l	ND	12.2 µg/l	ND
Cis-1,2-dichloroethene	3.0 µg/l	ND	2.9µg/l	ND	2.9 µg/l	ND
Tetrachloroethene	13.0 µg/l	ND	15.3 µg/l	ND	14.4 µg/l	ND
Trichloroethene	13.4 µg/l	ND	14.7 µg/l	ND	14.7 µg/l	ND
1,1-cichlcroethylene	ND	ND	ND	ND	ND	ND

The data in Table 1 represent groundwater treatment influent and effluent concentrations measured during the fourth quarter of 2002. Approximately 24.86 million gallons of water were processed in the fourth quarter of 2002. Based on these data, approximately 0.13 lb/day in October, 0.14 lb/day in November and 0.10 lb/day in December of total VOCs were discharged to the atmosphere during the reporting period.

Groundwater Monitoring Plan

Groundwater level measurements were collected on October 15, November 14, and December 11, 2002. These data were used to develop potentiometric surface maps with the map developed with the November 12, 2002 data attached to this report.

Suite of semi-annual groundwater samples were collected on November 4th and 5th, 2002 from the monitoring well network.

Source Area Soils

Sharp and Associates, Inc. (SHARP) continued operation of the air injection/air sparging/ and soil vapor extraction (AI/AS/SVE) system during the fourth quarter 2002. An additional 38 pounds of total VOCs were removed from the source area soils during the fourth quarter of 2002. To date, approximately 235 pounds of total VOCs (based upon SUMMA data results and PID readings) have been removed with the SVE/AS/AI system. Mass removal estimates were corrected after data from SUMMA canister samples collected on September 27, 2002 were analyzed. The removal rate has been maintained well below the de minimis value of 10 lb/day throughout the quarter.

System maintenance followed procedures outlined in the Removal Action Operations and Maintenance Manual (Sharp, October 26, 2001). One of the two SVE blowers failed in November but adequate airflow through the system was maintained by switching to an alternate blower that will remain in operation until the failed blower is replaced. In December the air sparging compressor motor failed and a replacement motor has been ordered.

GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR OCTOBER, NOVEMBER and DECEMBER, 2002

JANUARY 2003

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, September 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5 – Reporting, and in a letter dated November 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 736 hours in October, 720 hours in November, and 744 hours in December, for a total of 2,200 hours (99.64% of the total hours available) during the fourth quarter of 2002. Since operation of the treatment system began in December 1994, the system has been operating over 98.8% of the available time.

During the fourth quarter of 2002, the treatment system processed approximately 8.8 million gallons of water in October, 9.1 million gallons of water in November, and 6.9 million gallons of water in December for a total of 24.86 million gallons of water for the quarter. Since operation began in December 1994, the system has processed more than 948.24 million gallons of water.

During the fourth quarter of 2002, Metcalf & Eddy collected monthly air pressure measurements in the air-stripping unit's inlet and exhaust ducts to calculate airflow values. The airflow rate during the month of October averaged 2059 cfm, 1979 cfm in November, and 2173 cfm in December. Acid washing of the treatment system had been completed in early October.

M&E continued to perform scheduled monthly maintenance on the treatment system to ensure that the system is performing at maximum efficiency with decreased unscheduled downtime. Maintenance included replacing bag filters, lubricating the transfer pump and blower motors, and maintaining the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on October 15, November 14, and December 11, 2002. Analytical results are listed in Table 1.

Extraction well GSS-EW1 was operated at an average flow rate of approximately 80 gallons per minute (gpm) during the fourth quarter of 2002 until pump/motor failure occurred on December 13. GSS-EW2 was operated at an average flow rate of approximately 115 gallons per minute (gpm) during the period. The total pumping rate from the two wells averaged 187.4 gpm for the fourth quarter of 2002 – 205 gpm for the month of October, 205 gpm for the month of November, and 154.7 gpm for the month of December. The lower pumping rate observed in December was due to the declining performance of GSS-EW-2 prior to pump failure. Following pump failure, the pumping rate of the remaining pump, GSS-EW1, was increased to ensure capture of the groundwater VOC plume.

TABLE 1

VOCs	Influent October 15	Effluent Oct. 15	Influent November 14	Effluent November 14	Influent December 11	Effluent December 17
1,1 1-trichloroethane	10.5 µg/l	ND	12.2µg/l	ND	12.2 µg/l	ND
Cis-1,2-dichloroethene	3.0 µg/l	ND	2.9µg/l	ND	2.9 µg/l	ND
Tetrachloroethene	13.0 µg/l	ND	15.3 µg/l	ND	14.4 µg/l	ND
Trichloroethene	13.4 µg/l	ND	14.7 µg/l	ND	14.7 µg/l	ND
1,1-dichlorcethylene	ND	ND	ND	ND	ND	ND

The data in Table 1 represent groundwater treatment influent and effluent concentrations measured during the fourth quarter of 2002. Approximately 24.86 million gallons of water were processed in the fourth quarter of 2002. Based on these data, approximately 0.13 lb/day in October, 0.14 lb/day in November and 0.10 lb/day in December of total VOCs were discharged to the atmosphere during the reporting period.

Groundwater Monitoring Plan

Groundwater level measurements were collected on October 15, November 14, and December 11, 2002. These data were used to develop potentiometric surface maps with the map developed with the November 12, 2002 data attached to this report.

Suite of semi-annual groundwater samples were collected on November 4th and 5th, 2002 from the monitoring well network.

Source Area Soils

Sharp and Associates, Inc. (SHARP) continued operation of the air injection/air sparging/ and soil vapor extraction (AI/AS/SVE) system during the fourth quarter 2002. An additional 38 pounds of total VOCs were removed from the source area soils during the fourth quarter of 2002. To date, approximately 235 pounds of total VOCs (based upon SUMMA data results and PID readings) have been removed with the SVE/AS/AI system. Mass removal estimates were corrected after data from SUMMA canister samples collected on September 27, 2002 were analyzed. The removal rate has been maintained well below the de minimis value of 10 lb/day throughout the quarter.

System maintenance followed procedures outlined in the Removal Action Operations and Maintenance Manual (Sharp, October 26, 2001). One of the two SVE blowers failed in November but adequate airflow through the system was maintained by switching to an alternate blower that will remain in operation until the failed blower is replaced. In December the air sparging compressor motor failed and a replacement motor has been ordered.